# A Global Commitment to Lifelong Protection through Immunization









**IMMUNIZATION** 

**PROGRAM** 

ANNUAL REPORT







## NATIONAL IMMUNIZATION PROGRAM 2006 ANNUAL REPORT

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# FROM THE DIRECTOR, DR. ANNE SCHUCHAT

The progress achieved through immunization in 2005 in the United States and around the world fills me with admiration for the people, partners, and programs that made this happen. I am thrilled and humbled at the opportunity to lead the National Immunization Program, where on a daily basis, in every time zone, we are improving the health of people, protecting communities, and reducing the disparities in health that affect vulnerable and neglected parts of our society.

In the United States, more infants and toddlers are being protected through immunization against an increased number of diseases. New recommendations for adolescent immunization offer the potential to reduce pertussis and meningococcal meningitis and strengthen the platform for adolescent health promotion. Immunization has interrupted endemic transmission of rubella, and uptake of newer vaccines has resulted in record lows of varicella, pneumococcal disease, and hepatitis A. Increased attention to influenza control provides the opportunity to dramatically improve immunization efforts in adults.

In 2005, unprecedented devastation and challenges to health resulted from nature: the tsunami in South Asia, Hurricane Katrina in the Gulf Coast region, and a massive earthquake in Pakistan. Immunizations are a critical tool in these circumstances, and NIP staff provided assistance to the emergency relief measures, through vaccine recommendations and distribution, and provision of communications, epidemiologic, and emergency response expertise to state and local public health officials. In the United States, immunization information systems provided precious data for children who were displaced from Louisiana, Alabama, and Mississippi, reducing the need for costly revaccination as families relocated.

Preparedness for pandemic influenza also drew the world's attention in 2005. NIP played a critical role in preparedness—from helping to develop the HHS pandemic influenza plan to conducting an innovative public engagement project that sought the public's input on community values for prioritizing vaccine use in the pandemic setting.

The global reach of vaccine-induced prevention also achieved new milestones. Fifty years after the first polio vaccine, NIP continued working with partners on global eradication of polio while also championing measles mortality reduction and strengthening routine immunization activities. This work is reducing illness and death caused by vaccine-preventable diseases, and building the foundation for the introduction of new vaccines in the developing world.

I have quickly learned that the people behind these accomplishments are passionate about their work and truly committed to making a difference to the communities we serve in the United States and worldwide. Through advances in research, technology, and the growth in public and private partnerships and commitment, the future holds awesome possibilities for protecting health through immunization. I thank you for your dedication and hard work and look forward to joining you in "delivering on the possible" in the years ahead.

Sincerely,

Anne Schuchat, MD, CAPT, USPHS

Dr. Anne Schuchat, Director of the National Immunization Program (NIP), Centers for Disease Control and Prevention (CDC), joined CDC in 1988 as an Epidemic Intelligence Service (EIS) officer in the Meningitis and Special Pathogens Branch within the Division of Bacterial and Mycotic Diseases at the National Center for Infectious Diseases (NCID). She served as the first medical director of the Active Bacterial Core surveillance (ABCs)/Emerging Infections Program Network, a multi-state collaboration between CDC, state health departments and academic institutions. Dr. Schuchat became Chief of the Respiratory Diseases Branch (DBMD) in 1998 where she remained through January 2005. From February–November 2005, she served as Acting Director of NCID before beginning her tenure as Director of NIP in December.

During her time at CDC, Dr. Schuchat joined colleagues agency wide on numerous emergency response activities, including the 2001 anthrax bioterrorism response and the 2003 SARS outbreak, where she headed the Beijing City epidemiology team for the WHO China Office. She continues to serve as a visiting professor for the Beijing Centers for Disease Prevention and Control.

Dr. Schuchat has made crucial contributions to the prevention of infectious diseases in children. She is best known for her role in group B streptococcal disease prevention in carrying out epidemiologic studies and surveillance and in spearheading national guidelines for prevention using intrapartum antimicrobial prophylaxis. Based on her work, CDC's guidelines, issued in partnership with the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics, have led to an 80% reduction in newborn infections and a 75% narrowing of racial disparity in this infectious disease.

Dr. Schuchat also has played important roles in pre- and post-licensure evaluations of conjugate vaccines for bacterial meningitis and pneumonia. Through ABCs, her work provided the evidence base for the U.S. policy supporting the introduction of pneumococcal and meningococcal conjugate vaccines into routine childhood schedules. The ABCs also documented the impact on bacterial meningitis, invasive disease, and antimicrobial resistance of introductions of these vaccines, as well as the tremendous indirect benefits that the pneumococcal conjugate vaccine used in young children has had on reducing disease in unvaccinated adults and children through interruption of transmission. Dr. Schuchat has assisted in accelerating the availability of new vaccines for the prevention of meningitis and pneumonia in resource-poor countries through consultancies with the World Health Organization and participation in the Global Alliance for Vaccines and Immunization's Hib Initiative.

Her efforts have been recognized with the U.S. Public Health Service (PHS) Meritorious Service Medal, the American Public Health Association's Maternal and Child Health Young Investigator Award, the PHS Physician Research Officer of the Year, and an Honorary Doctorate in Science from Swarthmore College. Dr. Schuchat has published more than 150 articles, chapters, and reviews. She has mentored dozens of Epidemic Intelligence Service officers and others at CDC, and has worked closely with WHO, FDA, NIH, USAID, and IDSA on a number of infectious disease, vaccine, and prevention issues. Dr. Schuchat graduated with Highest Honors from Swarthmore College and with Honors from Dartmouth Medical School. She served as resident and chief resident in Internal Medicine at New York University's Manhattan VA Hospital before beginning her public health career at the CDC.

ANNE SCHUCHAT, MD

CAPTAIN, USPHS

**DIRECTOR. NIP** 



# An influential force in extraordinary

STEPHEN L. COCHI, MD, MPH

CAPTAIN, USPHS

ACT. DIRECTOR, NIP 2003-05

DR. STEPHEN L. COCHI, former Acting Director, National Immunization Program, CDC, has been in the forefront of shaping national and international policy, scientific recommendations and funding for control of vaccine-preventable diseases for more than two decades. Dr. Cochi has been a leader in developing national, global and regional immunization initiatives, identifying funding and partners to help achieve immunization objectives, and nurturing these initiatives with a combination of scientific and programmatic expertise. As a result of Dr. Cochi's efforts, millions of children live healthier lives, millions of deaths have been prevented, and the successful immunization initiatives he has led have resulted in a broad range of new public health partnerships to protect the health of children in the United States and around the world.

After medical and postgraduate training at Duke University and CDC, Dr. Cochi served as the Chief of the Infant Immunization Section at CDC and quickly became a recognized expert in the broad range of vaccine-preventable diseases in the United States. Dr. Cochi has published more than 200 journal articles, book chapters, and other articles on polio, rubella, mumps, measles, and other vaccine-preventable diseases.

From 1993 to 2003, Dr. Cochi directed CDC's expanding global immunization activities, a time of unprecedented growth and success in global immunization programs. Dr. Cochi served as a scientific advisor on numerous advisory bodies and helped foster successful partnerships with national and international organizations and governments to make the vision of a more fully vaccinated world a reality. In collaboration with WHO, PAHO, Rotary International, UNICEF, American Red Cross, United Nations Foundation, and other partners, Dr. Cochi's leadership has led to extraordinary achievements.

Dr. Cochi's leadership of the National Immunization Program has been associated with a period of record high vaccination coverage in the United States and with record low levels of vaccine-preventable diseases. NIP thanks Dr. Cochi for his scientific and programmatic leadership and contributions to national and global immunization programs.

- Vaccination of more than a billion children with polio vaccine
- The number of polio cases has been reduced from more than 350,000 annually in 1988 to about 2000 cases in 2005, a decline of more than 99%. More than 250,000 lives have been saved and five million cases of childhood paralysis have been prevented through the global polio eradication initiative. In addition, more than one million lives have been saved since 1998 by administering Vitamin A during polio immunization campaigns.
- Measles deaths have been reduced by 60% in Africa since 1999, saving the lives of more than 300,000 children. Endemic measles has been eliminated from the Western Hemisphere. Measles importations from Latin America into the United States have virtually disappeared from 2000 to 2005.
- Regional measles elimination initiatives have been established in the Western Pacific, European and Eastern Mediterranean regions of WHO, and the first regional initiative to eliminate Hepatitis B was established in the Western Pacific Region in 2005.

# NATIONAL IMMUNIZATION PROGRAM MISSION & GOALS

In our efforts to carry out our mission and achieve our goals, the National Immunization Program is committed to:

PROMOTING IMMUNIZATION AT EVERY STAGE OF LIFE

PROVIDING LEADERSHIP ON VACCINES & IMMUNIZATION

STRENGTHENING & COMMUNICATING IMMUNIZATION SCIENCE

ESTABLISHING PARTNERSHIPS & FOSTERING COLLABORATION

PROVIDING IMMUNIZATION EDUCATION & INFORMATION

IMPROVING HEALTH IN THE UNITED STATES & WORLD

#### **MISSION**

THE MISSION of the National Immunization Program is to prevent disease, disability, and death in children and adults through vaccination. To achieve this mission, we strive to

- prevent disease
- achieve maximum immunization coverage
- establish effective partnerships
- conduct reliable scientific research
- implement effective immunization systems
- ensure vaccine safety
- promote a positive National Immunization Program work environment

#### **FUTURES INITIATIVE**

CDC RECENTLY ENGAGED IN A STRATEGIC PLANNING process, the Futures Initiative, to enhance its capacity to protect and improve the health of the American people in the twenty-first century. The Initiative was designed to strengthen and develop the public health workforce and to meet multiple public health challenges, including those resulting from an aging population, global threats of disease and terrorism, obesity, and epidemic threats of chronic diseases.

To achieve improved health impact, greater agency-wide coordination, better business accountability, and more robust public health research, CDC has developed a set of agency-wide health promotion and preparedness goals and has established Coordinating Centers that identify areas of synergy across CDC's organizational units. The National Immunization Program, the National Center for Infectious Disease, and the National Center for HIV, STD, and TB Prevention comprise the Coordinating Center for Infectious Diseases.

NIP's efforts are helping CDC achieve its two overarching health protection goals that were developed as a result of the Futures Initiative:

- Health promotion and prevention of disease, injury, and disability: All people, especially those at higher risk due to health disparities, will achieve their optimal life span with the best possible quality of health in every stage of life.
- Preparedness: People in all communities will be protected from infectious, occupational, environmental, and terrorist threats.





NIP's work is also consistent with the six strategic imperatives CDC has adopted:

- Achieving measurable health impact
- Being a customer-centric organization
- Strengthening our science through public health research
- Providing leadership in the nation's health system
- Establishing global health priorities
- Becoming more effective and accountable

Within these frameworks, NIP remains committed to achieving the following goals:

- Reducing the number of indigenous cases of vaccine-preventable diseases
- Ensuring that children and adolescents are appropriately vaccinated
- Increasing the proportion of adults and high risk persons who are vaccinated annually against influenza and vaccinated against pneumococcal disease
- Helping domestic and international partners achieve the World Health Organization's goal of global polio eradication
- Working with global partners to reduce the global measles-related mortality
- Improving vaccination coverage estimates by working with providers and promoting the continued use and expansion of immunization information systems

The Government Performance and Results Act (GPRA) and Healthy People 2010 are two goal-planning and performance-measurement processes by which progress toward immunization goals is measured. To learn more about NIP's progress toward reaching domestic and global immunization goals, visit the GPRA website, <a href="https://www.cdc.gov/od/perfplan/2004/2004/perf.pdf">www.cdc.gov/od/perfplan/2004/2004/perf.pdf</a>, and the Healthy People 2010 website, <a href="https://www.healthypeople.gov/document">www.healthypeople.gov/document</a>.

#### 1923-1927

Diphtheria, whole-cell pertussis, and tetanus vaccines become available

#### 1963

Measles vaccine licensed

Congress establishes the **Immunization Grants Program** to ensure that children, adolescents, and adults receive appropriate immunizations through partnerships with health providers in public and private sectors

#### 1966

CDC announces the first national Measles Eradication Campaign

#### 1977

Last case in the world of endemic smallpox reported CDC launches National Childhood Immunization Initiative to attain 90% immunization levels in the United States









Advisory
Committee on
Immunization
Practices (ACIP),
designed to
provide CDC
with recommendations about
vaccine use,
holds its first
meeting at CDC



#### 1955

Inactivated polio vaccine licensed

#### 1979

Last case in the United States of polio caused by wild polio virus

## IMMUNIZATION'S HISTORY OF SUCCESS

CDC recommends discontinuation of routine vaccination for smallpox in the United States

1971

#### 1991

CDC partners in planning a national immunization initiative to ensure 90% of children are fully immunized by age 2 years CDC provides laboratory support to eradicate polio in the Americas

#### 1995

Chickenpox (varicella) vaccine licensed

#### 2000

Measles no longer endemic in the United States Pneumococcal

conjugate vaccine licensed

#### 2003

**National Immunization** Program celebrates tenth year of record reductions in the United States in vaccinepreventable diseases





1993

National

analysis influences Medicare to cover influenza vaccination

**Immunization** Program 1988 established to **CDC** establishes increase unit dedicated to immunization global polio coverage and to eradication and protect children provides under age 2 assistance to the from vaccine-World Health preventable Organization in diseases this cause NIP's cost-benefit

#### 1998

Nationwide immunization objectives for 2010 established, including one addressing vaccine safety





Rubella no

longer endemic in the United States NIP's Global **Immunization** Division reports 39% drop in measles-related deaths worldwide between 1999 and 2003

#### 2005

After nearly four decades of vaccinations, CDC announced the elimination of the rubella virus in the **United States**